(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 31 March 2005 (31.03.2005)

PCT

(10) International Publication Number WO 2005/027972 A2

(51) International Patent Classification⁷: 31/502

A61K 45/06,

(21) International Application Number:

PCT/EP2004/010686

(22) International Filing Date:

23 September 2004 (23.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/505,250

23 September 2003 (23.09.2003) US

- (71) Applicant (for all designated States except AT, US): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BOLD, Guido [CH/CH]; Bleumatthöhe 16, CH-5073 Gipf-Oberfrick (CH). BRUEGGEN, Josef, Bernhard [DE/CH]; Erlensträsschen 73, CH-4125 Riehen (CH). HUANG, Jerry, Min-Jian [US/US]; 2 Knapp Avenue, Florham Park, NJ 07932 (US). KINDER, Frederick, Ray, Jr. [US/US]; 37 Olyphant Drive, Morristown, NJ 07960 (US). LANE, Heidi [CH/CH]; Lehenmattstrasse 189, CH-4052 Basel (CH). LATOUR, Elisabeth, Jeanne [FR/FR]; 26F, rue

de Bâle, F-68870 Bartenheim-La Chaussée (FR). MAN-LEY, Paul, William [GB/CH]; Bruggweg 12, CH-4144 Arlesheim (CH). WOOD, Jeanette, Marjorie [NZ/CH]; In den Kleematten 18, CH-4105 Biel-Benken (CH).

- (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMBINATION OF A VEGF RECEPTOR INHIBITOR WITH A CHEMOTHERAPEUTIC AGENT

(57) Abstract: The present invention relates to a combination therapy for treating patients suffering from proliferative diseases or diseases associated with persistent angiogenesis. The patient is treated with: (a) a VEGF inhibitor compound; and (b) one or more chemotherapeutic agents selected from the group consisting of: i. an aromatase inhibitor; ii. an anti-estrogen, an anti-androgen (especially in the case of prostate cancer) or a gonadorelin agonist; iii. a topoisomerase I inhibitor or a topoisomerase II inhibitor; iv. a microtubule active agent, an alkylating agent, an anti-neoplastic antimetabolite or a platin compound; v. a compound targeting/decreasing a protein or lipid kinase activity or a protein or lipid phosphatase activity, a further anti-angiogenic compound or a compound which induces cell differentiation processes; vi. a bradykinin 1 receptor or an angiotensin II antagonist; vii. a cyclooxygenase inhibitor, a bisphosphonate, a heparanase inhibitor (prevents heparan sulphate degradation), e.g., PI-88, a biological response modifier, preferably a lymphokine or interferons, e.g., interferon γ, an ubiquitination inhibitor, or an inhibitor which blocks anti-apoptotic pathways: viii. an inhibitor of Ras oncogenic isoforms or a farnesyl transferase inhibitor, ix. a telomerase inhibitor, e.g., telomestatin; x. a protease inhibitor, a matrix metalloproteinase inhibitor, a methionine aminopeptidase inhibitor, e.g., bengamide or a derivative thereof, or a proteasome inhibitor, e.g., PS-341; xi. agents used in the treatment of hematologic malignancies or FMS-like tyrosine kinase inhibitors; xii. an HSP90 inhibitors; xiii. HDAC inhibitors; xiv. mTOR inhibitors; xv. somatostatin receptor antagonists; xvi. integrin antagonists; xvii. anti-leukemic compounds; xviii. tumor cell damaging approaches such as ionizing radiation; xix. EDG binders; xx. anthranilic acid amide class of kinase inhibitors; xxi. ribonucleotide reductase inhibitors; xxii. S-adenosylmethionine decarboxylase inhibitors; xxiii. antibodies against VEGF or VEGFR; xxiv. photodynamic therapy; xxv. angiostatic steroids; xxvi. implants containing corticosteroids; xxvii. AT1 receptor antagonists; and xxviii. ACE inhibitors.